

HYGIENE AND PUBLIC HEALTH

UNDER THE CHARGE OF

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Conjugal Tuberculosis.—WARD (*Lancet*, October 4, 1919, p. 606) states that there is considerable difference of opinion in regard to the frequency of conjugal tuberculosis. Probably the most authoritative opinion is that conjugal infection is rare, and any increased incidence is attributed to predisposition and causes other than direct infection. The author as tuberculosis officer of South Devon has visited the homes of reported cases of tuberculosis and examined the patient and the contacts in the home. Out of 156 cases in which husband or wife was examined, 91 (58 per cent.) were found to be tuberculous, 16 (10 per cent.) suspect, 49 (32 per cent.) negative. Considering wives whose husbands were first reported, out of 120 cases, 66 (55 per cent.) were tuberculous, 12 (10 per cent.) suspect and 42 (35 per cent.) negative. Among husbands of tuberculous wives, in 36 cases, 25 (69 per cent.) are tuberculous, 4 (11 per cent.) suspect and 7 (20 per cent.) negative. During the five-year-period in which the figures were collected the tuberculous mate first reported has died in 15 cases, and in 7 cases both husband and wife have died. Comparing the results with contact other than husband and wife, out of 1057 examined, 219 (20 per cent.) were tuberculous, 284 (27 per cent.) suspect and 566 (53 per cent.) negative. Considering the contacts of cases examined and found non-tuberculous, out of 81 examined, 4 contacts (5 per cent.) were tuberculous, 7 (8 per cent.) suspect and 70 (87 per cent.) negative. A statistical study of this kind is open to many criticisms. However, the figures have all been collected by one observer and hence may be justly compared. They were collected in the course of everyday work and not for the purpose of proving or disproving any theory. After following up these cases the author is convinced that the great majority of the mates of tuberculous husbands or wives do sooner or later show signs of tuberculosis, but also that the great majority of those infected recover, and recover more rapidly than ordinary tuberculous patients. This may be attributed to an enhanced immunity conferred by graduated doses of bacilli. Over 50 per cent. of all cases of tuberculosis are due to direct personal infection, and for that reason highly infective cases should be isolated.

Ivy and Sumac Poisoning.—SWEET and GRANT (*Public Health Reports*, 1920, xxxv, 443) give a discussion of the whole subject of rhus poisoning. The plants responsible are described, and, following this, the purely medical phases of the subject. The irritating principle

of the plants is toxicodendrol, an oily substance which is widely distributed throughout the plants, the most minute amount of which can produce the characteristic poisoning. The contact may be direct or through an intermediate object, as clothing. The smoke from burning rhus may give rise to the poisoning. The matter of individual susceptibility is very important, many persons being practically immune but developing the manifestations of poisoning after prolonged exposure or intense application. The time between exposure and development of symptoms varies from a few hours to five days, depending on the susceptibility of the person, the degree of exposure and the part exposed. A tub bath may be the means of wider distribution of the irritating principle. The clinical manifestations vary somewhat and are not of special importance, being similar to those of other irritant poisons. Prevention may be accomplished, at least in part, by the use of rubber gloves or ordinary gloves, by washing of the exposed part thoroughly with soap and water, being careful not to disseminate the poison. Diluted alcohol is also useful to remove the irritating material. There is no specific treatment and the irritation is essentially self-limiting, usually disappearing in a week or ten days. For relief of itching immersion in hot water is recommended and exposure to air, rather than bandaging, is advised. A 10 per cent. solution of sodium hyposulphite is useful, as is a 1 to 10 dilution in water of the fluid extract of grindelia. Sugar of lead, so long in vogue, is not advised. The blisters may be opened with a needle. Poison ivy and sumac should be destroyed by plowing and cultivation of the land, by repeated mowing of the plants and by sprinkling of the foliage with kerosene. Arsenate of sodium, in the proportion of 2 pounds to 10 gallons of water, is an efficient spray for use when the ivy clings to buildings and fences.

Water-borne Typhoid Fever Outbreak in Tonawanda, New York.

—THEODORE HORTON, Chief Engineer, New York State Department of Health (*Public Health Reports*, 1920, xxxv, 391) presents the following conclusions based on data secured from an outbreak of typhoid fever in a community which had been given ample warning of the risk incurred by using an unprotected water supply. From the evidence presented in this report and in the appended tables, it may be concluded: (1) That the outbreak of typhoid in Tonawanda, herein described, was due to an intensive infection of the public water supply, following the breaking of the intake line at a point in the river considerably nearer the American shore than the intake crib. (2) That had a chlorination plant been installed and in proper operation prior to this outbreak, as had been repeatedly recommended by the State Department of Health, the outbreak would not have occurred. (3) That the installation of a chlorination plant resulted in an almost immediate checking of the outbreak and undoubtedly prevented a much more severe outbreak from subsequent leaks in the new intake line when this line was first put into service. (4) That since its installation the chlorination plant has been operated with care and efficiency. (5) That most, if not all, of the local wells in the city of Tonawanda undoubtedly receive gross pollution; and in the case of the Johnson well, it is probable that actual infection occurred. (6) That at certain mills the accessibility of polluted industrial water supplies and their